

# Pediatric Shock

1119

Hypoperfusion or shock is defined as a decreased effective circulation, with inadequate delivery of oxygen to tissues. Shock may be present in its early stage (compensated) or its late stage (decompensated). Pediatric shock may exist with normal, high, or low blood pressure.

## Basic Life Support

1. Refer to Pediatric Primary Field Survey (recent illness, fever, injury).
2. Identify signs and symptoms of shock:
  - Poor capillary refill
  - Decreased peripheral pulses
  - Cool, mottled extremities
  - Altered level of consciousness: lethargy, hallucinations, agitation, coma
  - Tachycardia
  - Tachypnea
  - Decreased urine output
3. If trauma with ongoing bleeding, stop external hemorrhage.
4. Use pulse oximeter, if available. Apply 100% oxygen by non-rebreather mask.
5. Pediatric airway management prn.
6. Cardiac monitor
7. Transport and call for additional orders.

## Advanced Life Support

### HYPOVOLEMIA

1. Vascular access. IO may be indicated if PIV access attempts fail.
2. Fluid boluses: 20 ml/kg IV or IO of NS or LR.
3. Obtain blood glucose and follow hypoglycemia protocol if  $< 60$  mg %.
4. If suspected history of volume loss and no improvement after initial fluid bolus, administer additional fluid boluses at 20 ml/kg prn. Refer to Appendix: Fluid Resuscitation for endpoints.

### CARDIOGENIC

1. Consider rhythm disturbance. If supraventricular tachycardia or ventricular tachycardia with a pulse and evidence of low cardiac output, follow protocol for Pediatric Tachycardia.
2. Fluid bolus, 10 ml/kg NS or LR IV or IO.
3. Consider dopamine.

### DISTRIBUTIVE (Septic)

1. Fluid boluses: 20 ml/kg NS or LR IV or IO.
2. If history of fever or suspected infection, give additional boluses of 20 ml/kg prn, to 60 ml/kg.
3. If suspected allergic reaction, follow protocol for Pediatric Anaphylaxis.
4. Consider dopamine.
5. Contact medical control for permission and rate of dopamine. Mix dopamine solution as follows:  
 $6 \times \text{wt (kg)} = \text{amount of dopamine in mgs; add NS to make a total of 100 cc of fluid.}$   
 $1 \text{ ml/hr} = 1 \text{ mcg/kg/min.}$   
Stop dopamine for IV extravasation or extremity blanching distal to IV.

## Key Points/Considerations

1. Use appropriate barrier precautions.

Service Director Initials \_\_\_\_\_

Medical Director Initials \_\_\_\_\_

Date Approved By KBEMS \_\_\_\_\_

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